



## STATE BOARD OF EQUALIZATION STAFF LEGISLATIVE BILL ANALYSIS

Date Introduced:	<b>02/22/01</b>	Bill No:	<b>AB 695</b>
Tax:	<b>Sales and Use</b>	Author:	<b>Pescetti</b>
Board Position:		Related Bills:	<b>AB 27X (Koretz)</b> <b>AB 51X (Daucher)</b> <b>AB 58X (Cox)</b> <b>AB 1319 (Cox)</b> <b>SB 1X (Soto)</b> <b>SB 877 (Poochigian)</b> <b>SB 1074 (Soto)</b>

### BILL SUMMARY

This bill would provide a sales and use tax exemption for sales and purchases of energy efficient residential and commercial appliances, as defined, and any solar paneling, as specified.

### ANALYSIS

#### Current Law

Under existing law, the sales or use tax applies to the sale or use of tangible personal property in this state, unless otherwise exempted or excluded by statute. Under current law, the sales and use tax applies to sales and purchases of appliances and solar paneling to the same extent as it applies to any other sale of tangible personal property that is not otherwise exempted or excluded from tax by statute.

#### Proposed Law

This bill would add Section 6356.4 to the Sales and Use Tax Law to provide a sales and use tax exemption for sales and purchases of:

- Energy efficient residential and commercial appliances, defined as appliances that meet or exceed the applicable ENERGY STAR efficiency requirements developed by the United States Environmental Protection Agency and the United States Department of Energy.
- Solar paneling that is capable of generating up to one megawatt of electricity per site.

The bill would become operative on the first day of the calendar quarter commencing more than 90 days after the bill becomes effective.

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### **In General**

The California Energy Commission, with the passage of Senate Bill 90 (Sher, Ch. 905, Stats. 1997), has the authority to administer funds collected from the state's investor-owned utilities to support renewable energy technologies. Assembly Bill 1890 (Brulte, et al., Ch. 854, Stats. 1996), which also deregulated the electricity industry, established a new statewide renewables policy by providing \$540 million collected from Southern California Edison, Pacific Gas and Electric Company, and San Diego Gas & Electric over four years beginning in 1998 to support existing, new and emerging renewable technologies from 1998 to 2001.

AB 1890 also required the Energy Commission to submit a report to the Legislature outlining allocation and distribution recommendations for those renewables funds. This report, as adopted by the Legislature, became SB 90 - the administrative guidelines for the Renewable Energy Program.

Senate Bill 90 implemented the report's recommendations and created a Renewable Resource Trust Fund containing four accounts: the Existing Renewable Resources Account, the New Renewable Resources Account, the Emerging Renewable Resources Account (Buy-Down Program), and the Customer-Side Renewable Resources Purchases Account.

The "Buy-Down Program" provides cash rebates on eligible renewable energy electric-generating systems, such as small wind turbines, fuel cells, solar photovoltaics and other solar power generating equipment. The Commission provides a rebate of up to \$3,000 per kilowatt, or 50 percent off the system purchase price (whichever is less) of certified equipment.

### **COMMENTS**

- 1. Sponsor and purpose.** This bill is sponsored by the author and is intended to provide an incentive to purchase energy efficient appliances and solar panels in light of the state's current energy crisis.
- 2. What are energy efficient residential and commercial appliances?** Under the United States Environmental Protection Agency's (EPA) Energy Star website (<http://www.energystar.gov>), there are a variety of "Energy Star" products that do not fit within the category of "appliances." The EPA only lists clothes washers, refrigerators, room air conditioners, and dishwashers under the category of appliances. Other products used for heating and cooling, for example, such as hot water heaters, clothes dryers, furnaces, central heat and air units, oven, and ranges are categorized separately and would not appear to meet the criteria of the proposed exemption.

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- 3. Bill could result in confusion for installing contractors of solar paneling.** The Sales and Use Tax Law treats sales by construction contractors differently than sales by other retailers. Generally, contracts for improvements to real property, such as the installation of solar energy panels, constitute construction contracts and the contractor is responsible for payment of the tax on his or her purchase of materials, such as electrical wiring, piping, etc. furnished and installed in the performance of a construction contract. The contractor is generally regarded as a retailer of fixtures, such as the solar panels, and the sales tax applies to the sale of the panels by the contractor to the customer if the contract states the sales price. If the contract does not state the sales price, then the contractor is liable for the tax on his or her cost price. Typically, a contractor who furnishes and installs a solar energy system bills the customer on a lump sum basis, without any separate charge for the materials, fixtures or sales tax. In such cases, the contractor would receive the benefit of the proposed exemption on his or her purchase of the components of the system. This could be confusing for installing contractors who would be required to issue exemption certificates to their vendors in order to receive the benefit of the proposed exemption. In addition, it is questionable whether or not this tax savings would be passed on to the customer by the contractor.
- 4. Proposed exemption would appear to apply only to solar paneling itself.** The language of the bill would provide an exemption for sales and purchases of solar paneling that is capable of generating up to one megawatt of electricity per site. However, the bill does not specify whether other materials, such as wiring and piping, and any other item necessary for the installation of solar paneling would additionally qualify for the proposed exemption.
- 5. Related legislation.** Several sales and use tax measures have been introduced this session to respond to California's energy crisis. These include the following:

AB 27X (Koretz) - This measure would, among other things, provide a sales and use tax exemption for purchases of power generating equipment, and, as an alternative, provide an income tax credit for costs incurred for the purchase and installation of a power generation system.

AB 51X (Daucher) - This measure would add an exemption for generators installed under a qualified interruptible service contract of 3 years or more in duration.

AB 58X (Cox) and AB 1319 (Cox) - These measures would both provide a state tax exemption for any solar energy system designed to provide thermal energy for the purpose of heating water or providing electrical power, as specified.

SB 1X (Soto) - This measure would provide an exemption until January 1, 2003 for sales and purchases of microturbines, fuel cells, photovoltaic cells, and any other solar energy cell or panel.

SB 877 (Poochigian) - This measure would exempt purchases of qualified cogeneration equipment, as defined, for use on dairy farms, and would also authorize an income tax credit for an amount equal to the portion of property taxes attributable to those fixtures and improvements to a dairy farm utilized in the cogeneration or transformation of dairy industry by-products into fuel sources used for the operation of that dairy farm.

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SB 1074 (Soto) - This bill would, until January 1, 2003, exempt microturbines, fuel cells, and photovoltaic cells or any other solar energy cell or panel.

## **COST ESTIMATE**

Some costs would be incurred in notifying affected retailers and contractors, verifying claimed exemptions, and amending the Board's regulation. These costs are expected to be absorbable.

## **REVENUE ESTIMATE**

### **Background, Methodology, and Assumptions**

#### **Residential & Commercial Appliances**

Energy Star was introduced by the U.S. Environmental Protection Agency in 1992 as a voluntary labeling program designed to identify and promote energy-efficient products, in order to reduce carbon dioxide emissions. The four major appliances that are part of this program include clothes washers, refrigerators, dishwashers and room air conditioners. Statistics used for the analysis were provided by D & R International and the Association of Home Appliance Manufacturers (AHAM). D & R is a strategic planning and marketing firm that produces market based solutions to energy problems. AHAM is a nonprofit trade association of home appliance manufacturing companies.

#### **Refrigerators**

Total California Energy Star refrigerator sales (units) in 2001 are estimated to be 97,485. The average price per refrigerator is \$1,024. Total sales in 2001 are estimated to be \$99.8 million ( $\$1,024 \times 97,485 \text{ units} = \$99.8 \text{ million}$ ).

#### **Clothes Washers**

Total California Energy Star clothes washer sales (units) in 2001 are estimated to be 112,885. The average price per clothes washer is \$600. Total sales in 2001 are estimated to be \$67.7 million ( $\$600 \times 112,885 \text{ units} = \$67.7 \text{ million}$ ).

#### **Dishwashers**

Total California Energy Star dishwasher sales (units) in 2001 are estimated to be 77,746. The average price per dishwasher is \$467. Total sales in 2001 are estimated to be \$36.3 million ( $\$467 \times 77,746 \text{ units} = \$36.3 \text{ million}$ ).

#### **Room Air Conditioners**

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There were no estimates provided for California Energy Star air conditioner sales (units) for 2001. In 1996, California had a 5% market share of US air conditioner sales. In 2001, the overall sales of air conditioners in US were 5.2 million units.

Based on the 1996 statistic (5%), it is estimated that air conditioner sales in California (units) in 2001 would number 260,000 units ( $5\% \times 5.2 \text{ million units} = 260,000 \text{ units}$ ). In a report compiled by D & R in 1999, it was revealed that although promotions have been conducted in California in recent times, the market share for Energy Star air conditioners did not exceed 8%.

Total California Energy Star air conditioner sales (units) in 2001 are estimated to be 20,800 ( $8\% \times 260,000 = 20,800 \text{ units}$ ). The average price per air conditioner is \$279. Total sales in 2001 are estimated to be \$5.8 million ( $\$279 \times 20,800 \text{ units} = \$5.8 \text{ million}$ ).

### Solar Panels

A solar panel is a collection of solar cells. It is also called a photovoltaic which basically means 'light-electricity'. A photovoltaic cell is an integrated device consisting of layers of semiconductor materials and electric contacts. A module is an integrated assembly of interconnected photovoltaic cells. According to the EIA Annual Photovoltaic Module/Cell Manufacturer's Survey, total domestic shipments of the module and cells in 1998 were 15,169 peak kilowatts. (These devices are measured in peak kilowatts, which refers to their maximum electric output.) Domestic shipments of cells were 5,475 peak kilowatts and domestic shipments of modules were 9,694 peak kilowatts.

The average price for cells is estimated to be \$3,150 per peak kilowatt and for modules, \$3,950 per peak kilowatt. Total annual domestic expenditures are estimated to be \$55.5 million. ( $(5,475 \text{ peak kilowatts} \times \$3,150 \text{ per peak kilowatt}) + (9,694 \text{ peak kilowatts} \times \$3,950 \text{ per peak kilowatt}) = \$55.5 \text{ million}$ ).

No figures were available for expenditures in California. If we assume that California accounts for 12% of these sales (California represents 12% of US population), then annual cell and module expenditures in California are estimated to be \$6.7 million. ( $12\% \times \$55.5 \text{ million} = \$6.7 \text{ million}$ ).

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## Total Expenditures

Total estimated expenditures are as follows:

Type	Expenditures (in millions)
Appliances	\$ 209.6
Solar Panels	<u>6.7</u>
Total	<u>\$ 216.3</u>

## Revenue Summary

The annual revenue loss from exempting residential and commercial appliances and solar panels from the sales and use tax would be as follows:

	Revenue Effect (in millions)
State loss * (5%)	\$ 10.8
Local loss (2.25%)	4.9
Transit loss (0.67%)	<u>1.5</u>
Total loss	<u>\$ 17.2</u>

\* The state sales and use tax rate will be 4.75% for calendar year 2001 and is scheduled to be 5% in calendar year 2002.

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